

BULLETIN OF FOREIGN PLANT INTRODUCTIONS.

June 16 to 23, 1910.

NEW PLANT IMMIGRANTS:

- AGROPYROM SPP.** (Gramineae.) 28306-308. From Russia. Received through Prof. N. E. Hansen. 28306. "This is considered a very valuable grass, native of the driest steppes of Eastern Russia and a large part of Siberia. The chemical analysis of this plant has attracted the attention of the Russian Government agronomists, indicating a higher percent of protein than alfalfa. If this holds true under cultivation in the United States it may be a valuable addition to our western grasses. Prof. R. W. Williams of the Imperial Agricultural College at Moscow, Russia, is improving this species by selection from individual plants. The present sample is selection No. 1. The original seed was gathered growing wild in the Turgai Province, the dry steppe region in Western Asia, just north of the Sea of Aral." (Hansen.) 28307. "A grass native of the dry steppes of Eastern European Russia and Western Siberia. The present lot is selection No. 1, grown from a single plant by Prof. R. W. Williams." (Hansen.) 28308. "A native grass collected on the Russian Pamir plateau near the border of India. The present sample is selection No. 1, by Prof. Williams." (Hansen.) For distribution later.
- ANDROPOGON SORGHUM.** (Gramineae.) 28290-292. Three varieties of sorgo from the Island of Tsung-ming, China. Secured by Mr. D. MacGregor, Superintendent, Parks and Open Spaces, Shanghai, China. For distribution later.
- ANONA CHERIMOLA.** (Anonaceae.) 28293-294. Two varieties of cherimoyer from Nice, France. Presented by Dr. A. Robertson-Proschowsky. "A very hardy variety found growing in my garden. The seeds may reproduce this hardy strain. The fruits are of no value." (Proschowsky.) For distribution later.
- ANONA SP.** (Anonaceae.) 28287. A Ceylon species of Anona, presented by Mr. G. Regnard, Port Louis, Mauritius. For distribution later.
- AVENA SATIVA.** (Gramineae.) 28320. Received through Prof. N. E. Hansen. "Seed obtained originally from Nishni Novgorod Exposition; sample grown in Kherson Province, Southern Russia. The present sample is from a strain grown 10 years by Prof. Williams of the Imperial Agricultural College, Moscow; grown

the first five years as a field crop and the second five years in the plant breeding plots. Noted for extreme earliness. At first the grain was very small, but it is now larger and considerably later." (Hansen.) For distribution later.

BOUTELOUA BROMOIDES. (Gramineae.) 28194. From Aguas Calientes, Guatemala. Presented by Dr. J. N. Rose, Associate Curator, National Museum. For distribution later.

CAPPARIS SPINOSA. (Capparidaceae.) 28126. From near Petrovsk, Caucasus, Russia. The well known caper plant, a herbaceous perennial making long branches which crawl over the earth. Grows on very dry and stony places in the northeastern section of the Caucasus, where occasionally winter temperatures of 20° C. are experienced. This caper plant may prove to be of value as a profitable crop for the more arid southwestern sections of the United States. (Meyer's introduction.)

CARDIOSPERMUM SPP. (Sapindaceae.) 28183-185. From three different localities in Mexico. Collected and presented by Dr. J. N. Rose, Associate Curator, National Museum. For distribution later.

CARICA PAPAYA. (Papayaceae.) 28197. From Gualan, Guatemala. Presented by Dr. J. N. Rose, Associate Curator, National Museum. For distribution later.

CASTANOPSIS SP. (Fagaceae.) 28153. Seeds of a chestnut from Wuchang, Hupeh, China. Presented by Director Whong, Chinese Government College of Agriculture. Chinese name, Ber shin tze. For distribution later.

CERATONIA SILIQUA. (Caesalpinaceae.) 28136-151. Cuttings of sixteen varieties of carob from Portugal. Procured by Mr. Louis H. Ayme, American Consul General, Lisbon. All sent to Chico, California, for propagation. For distribution later.

CINNAMOMUM CAMPHORA. (Lauraceae.) 28154-155. Seed of two varieties of camphor tree from Wuchang, Hupeh, China. Presented by Director Whong, Chinese Government College of Agriculture. For distribution later.

CITRUS DECUMANA. (Rutaceae.) 28156. Pomelo from Wuchang, Hupeh, China. Presented by Director Whong, Chinese Government College of Agriculture. For distribution later.

COFFEA SP. (Rubiaceae.) 28274. From Ponce, Porto Rico. Received through Mr. J. W. Van Leenhoff. "Maragogipe. This is a variety of coffee supposed to have originated as

a mutation from the common Arabian coffee. It was discovered in Brazil about 1870. The leaves of this variety are much broader and the berries larger than the ordinary type. The plants are very vigorous but are usually shy bearers." (G. N. Collins.) For distribution later.

COMBRETUM COMOSUM. (Combretaceae.) 28288. A pretty ornamental shrub from Port Louis, Mauritius. Presented by Mr. G. Regnard. For distribution later.

CUCURBITA SP. (Cucurbitaceae.) 28316. Received through Prof. N. E. Hansen. "A field pumpkin from Simbirsk Province, Eastern Russia." (Hansen.) For distribution later.

CUCURBITA SPP. (Cucurbitaceae.) 28279-282. Collected from various localities in Mexico by Messrs. Rose, Standley and Russell in 1910. For distribution later.

DIOSPYROS SPP. (Diospyraceae.) 28186-189. From four different localities in Mexico. Collected and presented by Dr. J. N. Rose, Associate Curator, National Museum. For distribution later.

DOVYALIS HEBECARPA. (Flacourtiaceae.) 28286. A fruit tree from Ceylon. Presented by Mr. G. Regnard, Port Louis, Mauritius. For distribution later.

ECHINOCHLOA COLONA. (Gramineae.) 28195. From Gualan, Guatemala. Presented by Dr. J. N. Rose, Associate Curator, National Museum. For distribution later.

ELEUSINE SP. (Gramineae.) 28265. From Kizil-arwat, Turkestan. A crab-grass growing in the desert along banks of dry rivers and irrigation canals. Apparently the well known Bermuda grass or anyway a form of it. Recommended for trial as a lawn grass in dry and hot regions, as it forms a dense turf in its native haunts, where camels and donkeys browse upon it. (Meyer's introduction.)

EREMURUS SP. (Liliaceae.) 28266. From mountains near Bacharden, Turkestan. An ornamental Eremurus growing on dry mountain slopes between rocks and on stony debris. It has columnar spikes of rosy purple flowers. (Meyer's introduction.)

FLACOURTIA RAMONTCHI. (Flacourtiaceae.) 28289. A large fruited, thornless species of Flacourtia from Port Louis, Mauritius. Presented by Mr. G. Regnard. For distribution later.

GLYCYRRHIZA SP. (Fabaceae.) 28319. Received through Prof. N. E. Hansen. "A native forage plant from the dry steppe region of Orenburg. A relative of the cultivated licorice plant." (Hansen.) For distribution later.

GREWIA CANA. (Tiliaceae.) 27519. From Bloemhof District, Transvaal, South Africa. Presented by Prof. J. Burt-Davy, Transvaal Department of Agriculture, Pretoria. Kafir-raisin. "A common bush of the Southwestern Transvaal, growing to a height of 4 to 5 ft. The berries are small but are produced in large quantities. Each contains a large stone and the percentage of flesh is small. The flesh is sweet and the berries are eaten by Kafirs and white children." (J. Burt-Davy.) For distribution later.

IMPATIENS SPP. (Impatientiaceae.) 28267-273. Seven species of Impatiens from Peradeniya, Ceylon. Presented by Dr. J. C. Willis, Director, Royal Botanic Garden. For distribution later.

LARIX SIBIRICA. (Pinaceae.) 28182. Siberian larch. From Helsingfors, Finland. Presented by Miss Alexandra Smernoff. For distribution later.

LATHYRUS TUBEROSUS. (Fabaceae.) 28318. Received through Prof. N. E. Hansen. "Seed gathered from plants growing wild in the dry steppe region at Orenburg on the extreme eastern border of European Russia." (Hansen.) For distribution later.

NOTES FROM FOREIGN CORRESPONDENTS.

AUSTRALIA, Brisbane. Mr. John Williams, May 15. Will send strawberry seed in August when the crop is ripe. Also offers to send a mandarin orange originated near Brisbane, called Beauty of Glen Retreat.

CHINA, Hwai Yuan. Dr. Samuel Cochran, May 31. Says that Hwai Yuan is considered a center for the production and export of hemp. There are two varieties, Tsung Ma and Ho Ma, of which the latter is the better grade. Is sending samples of seed.

CHINA, Talefu, Yunnan. Mr. Geo. Forrest, April 31. One of the officials there wants cotton seed from America, and offers to send in exchange fruit from that region, such as pears, peaches, plums and nectarines. Says the pears there are the largest he has ever seen, being 6 to 8 inches in diameter. They are not of very good quality, because of lack of cultivation.

CHINA, Yachow, Szechuan Province. Mr. E. T. Sheed, May 4. Says they have three varieties of oranges there, a mandarin (loose-skinned), one like the Florida or California tight-skinned, seeded variety, and an orange with a slightly bitter twang. Says he prefers the latter to either of the others. It is of medium size and very juicy and rough-skinned. Is grown only in one place near there. They have many wild berries. There is a large yellow raspberry growing in the mountains that is particularly delicious. It has no thorns but is very hairy. He will send seeds and plants from there.

EGYPT, Port Said. Mr. O. F. Cook, June 17. Thinks *Eucommia ulmoides* worth experimenting with to determine the value of the gum it contains. Thinks we ought to try a series of experiments with *Ficus elastica* in the irrigated districts of the Southwest. *Ficus nitida* in Egypt is much like *F. elastica*. Thinks all the desirable trees of Egypt would grow in the Southwest. If excluded it would be by heat, rather than cold.

FRANCE, Marseilles. Director of the Colonial Museum, June 8. Offers to send tubers of wild species of *Solanum commersonii* and *S. Maglia*.

GERMANY, Hamburg. Mr. Robert P. Skinner, American Consul General, June 17. Sends a report on Morocco gum and its applications.

INDIA, Amritsar. Mr. Theo. C. Maller, May 25. Says mangos are propagated there solely by grafting. Says that banana blight is a disease unknown in India.

JAPAN, Kobe. Mr. Walter Gassett, Vice Consul in Charge at Kobe, has sent a very complete report in regard to the Kudzu vine (*Pueraria thunbergiana*), a valuable fiber plant of Japan, giving its location, uses, methods of preparation, etc. It is used for fodder, for the making of a grass cloth wall paper, in the making of baskets and rope, and starch is made from the roots. A copy of the report will be sent to any one wishing further details.

MEXICO. Mr. A. S. Hitchcock, Systematic Agrostologist of the Bureau of Plant Industry, is travelling in Mexico. He will go from Laredo to Mexico City and return by way of El Paso, with side trips, if possible, to Jalapa, Orizaba, Oaxaca, Guadalajara and Durango.

PRETORIA, Transvaal. Prof. J. Burtt-Davy of the Transvaal Department of Agriculture sends a colored plate and description of the Kafir plum (*Ximenia caffra*), which he sent us

in March and which was given S. P. I. number 27015. He says it is a small tree, native of the dry bush veldt country at an altitude of 3,500 feet, in districts practically free from frost. The drupe is 1 to 1½ inches long, fleshy and very acid, and is much appreciated by the Kafirs. It is said the fruit can be made into excellent jelly.

TURKEY, Smyrna. Mr. Ernest L. Harris, Consul, June 17. Sends a copy of the law regarding the manipulation of figs and the management of fig packing houses there.

OFFICE OF FOREIGN SEED AND PLANT INTRODUCTION.

BUREAU OF PLANT INDUSTRY.

PLANTS NOW READY FOR DISTRIBUTION.

EUTREMA HEDERAEFOLIA. 21663.

IPOMOEA FUCHSIOIDES. 20895. A tuberous morning-glory, indigenous to South Florida. It is of vigorous growth and covered for a large part of the year with brilliant carmine colored blooms.

DENDROCALAMUS STRICTUS. 21548. A very useful and strong growing bamboo of India, attaining a height of 100 feet, occasionally forming forests. This species does not die down after flowering as do other bamboos. It endures cold, as well as dry heat, and is useful for the protection of embankments on account of its fibrous roots.

CLEMATIS RECTA MANDSHURICA. 22620. An ornamental, herbaceous perennial, 2 to 3 feet high, indigenous to China.

XANTHOSOMA SP. 19797. An aroid, the leaves of which make an, excellent substitute for spinach. It succeeds best on moist rich soils.

ASTRAPAEA WALLICHI. 19897. An ornamental tree introduced from Madeira, having large pendant clusters of pink flowers.

IPOMOEA BATATAS. 14480. A sweet potato introduced from France, where it was brought from Dahomey. The leaves of the plant can be used as a substitute for spinach and the tubers, containing a higher percentage of sugar than beets, are fine flavored and make exceptionally good food for live stock.

PASSIFLORA EDULIS. 25874. A climber indigenous to Brazil, producing an edible fruit.

ECHIUM FASTUOSUM. 26190. A shrub indigenous to the Canary Islands, cultivated in California for its ornamental value.

HEERIA ELEGANS. 7688. A trailing plant indigenous to Southern Mexico; suitable for hanging baskets and rockeries.

JASMINUM NITIDUM. 7342.

CYPHOMANDRA BETACEA. 25515. This species is a herbaceous shrub, indigenous to the mountain regions of Brazil, adjacent to Peru. The fruit is egg-shaped, about 2 inches long, with a tomato-like flavor.

MACADAMIA TERNIFOLIA. 25845. A nut bearing tree from Australia, about as hardy as the orange. It is evergreen, and under favorable circumstances attains a height of 60 feet.

OLEA FOVEOLATA. 25846. A tall shrub, indigenous to South Africa.

QUILLAJA SAPONARIA. 26325. A large tree native to Chile, thriving in loamy and peaty, as well as sandy soil. The bark is rich in saponin.

QUERCUS DENTATA. 26945. An oak, indigenous to parts of China, Korea and Japan. This is one of the species on which the oak-silkworm feeds.

RAPHIONACME UTILIS. 25547. A herbaceous rubber-producing perennial, indigenous to Central Africa.

PRUNUS MICROCARPA. 27303. A shrubby, small fruited cherry, native to Southeastern Caucasus, Russia. Possibly of value as a stock for stone fruits in the semi-arid sections.

FEIJOA SELLOWIANA. 26120. This dark evergreen shrub is indigenous to Argentine. In hardiness it about equals the orange. The fruit is green, tomentose and averaging 1 inch in diameter; it is very delicately flavored. It succeeds well in California.

CINNAMOMUM LOUREIRII. 25884. Native of Japan and Cochin China. This species is supposed to be one of the most valuable sources of some of the best cinnamon that comes to our market.

PINUS ARMANDI. 27046. A dwarf pine from Western China.

EUGENIA UNIFLORA. 26409. An evergreen shrub, rather more tender than the orange; indigenous to South America. The fruit is about the size of a cherry and resinous before it is fully ripe. Thrives well in Southern Florida.

ALEURITES TRISPERMA. 26050. An Euphorbiaceous tree, native to the Philippines, yielding a valuable drying oil.

LONICERA PILEATA. 27047. An ornamental, suitable for rockeries and shrubberies.

CAESALPINIA NUGA. 25803. An attractive, sweet scented, flowering scandent shrub, indigenous to the Philippines.

- TUMION CALIFORNICUM.** 24333. An ornamental tree, attaining 75 feet in height under favorable circumstances. It is indigenous to California.
- PASSIFLORA LIGULARIS.** 26908. A vine native to Central America. The fruit is reported to be of excellent quality.
- BAMBOS ARUNDINACEA.** 27490. A bamboo, indigenous to India. This species attains a height of 30 to 45 feet, and being extremely spiny, makes an admirable living hedge, impenetrable by man or beast. It succeeds well on moist, rich soils, particularly on river banks. The seeds are used in India as food for poultry.
- JUNIPERUS PACHYPHLAEA.** 24624. A tree sometimes attaining a height of 60 feet, indigenous to the arid Southwest at elevations of 4,000 to 6,000 feet.
- GREIGIA SPHACELATA.** 24207.
- PASSIFLORA LAURIFOLIA.** 23879. A vine, indigenous to the West Indies and Brazil; the fruit is about 3 inches long and edible.
- EUCALYPTUS MICROTHECA.** 23495. Indigenous to Australia; a tree attaining a height of 150 feet under favorable conditions. Successfully resists frosts above 18° F. Requires well drained soil and is well adapted for desert regions. The timber is particularly useful for piles, bridges and railway sleepers.
- PANICUM DIVARICATUM.** 24879.
- AMYGDALUS NANA.** 24809. A dwarf almond from Turkestan.
- CARISSA CARANDAS.** 24194. A dense, spiny shrub or small tree, native of India; the fruit may be used in making tarts, puddings or jelly. A good hedge plant, able to stand light frosts.
- PINUS PEUCE.** 24358. An ornamental hardy pine of dense, regular habits and slow growth. Native to Southeastern Europe. Attains a height of 50 feet.
- PHYLLANTHUS ACIDA.** 23472. A small, very ornamental tree, indigenous to India and Madagascar, belonging to the family Euphorbiaceae. The fruit is produced in great abundance, and may be used in the manufacture of pickles or preserves. In hardiness the plant equals the mango and avocado.

- BLIGHIA SAPIDA.** 24592. A tree, indigenous to tropical Africa; about equals the mango in hardness. It is a very ornamental shade tree. The fruit is eaten prepared in various ways; stewed in milk and afterwards browned in a frying pan with butter; or eaten boiled, mixed with salt fish, onions and tomatoes.
- CAPSICUM FRUTESCENS.** 21474. A shrub, indigenous to tropical America. The berries are used as a substitute for cayenne pepper.
- CANARIUM COMMUNE.** 20808. One of the most ornamental avenue trees for the tropics. It is very tender and will not stand frost. In the Dutch East Indies the nuts have been used as a substitute for mother's milk.
- CAREX TRIANGULARIS.** 20990. A sedge, occurring throughout Texas and Oklahoma; of value in the manufacture of matting.
- SOLANUM MURICATUM.** 21546. An erect, half-shubby herb, indigenous to tropical America, producing an aromatic fruit which in flavor suggests an acid eggplant. It may be grown in Southern California, but has not been a success in Southern Florida.
- RUSCUS ACULEATUS.** 22429. An erect liliaceous shrub, suitable for garden hedges; native of the Mediterranean countries, Central Europe and Southwestern Asia. The young shoots are edible.
- CHIONANTHUS RETUSA.** 21617. Indigenous to China. A deciduous tree with Rhamnus-like leaves. In spring it bears white fringed, fragrant flowers, followed in the fall by masses of blue berries.
- GLEDITSIA SINENSIS.** 22376. A medium sized, leguminous tree, indigenous to China, bearing heavy fleshy pods which are utilized by the Chinese as a substitute for soap.